

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: ANTHONY GREEN Examiner #: 65854 Date: 5-15-06
 Art Unit: 1755 Phone Number 302-1367 Serial Number: 10/533,476
 Mail Box and Bldg/Room Location: 1015 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

PLEASE SEE ATTACHED.

(There was so little involving (III) and (IV), nothing was done with the commercially available pigments (I) and (II) as far as the search went.)

STAFF USE ONLY**Type of Search****Vendors and cost where applicable**

Searcher: <u>213</u>	NA Sequence (#) _____	STN <u>\$ 208.25</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>1-12</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>5-18-06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>5</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

Banks, Kendra

189871

From: ANTHONY GREEN [anthony.green@uspto.gov]
Sent: Sunday, May 14, 2006 8:40 PM
T : STIC-EIC1700
Subject: Database Search Request, Serial Number: 10/533,476

Requester:
ANTHONY GREEN (P/1755)
Art Unit:
GROUP ART UNIT 1755
Employee Number:
65854
Office Location:
REM 09C15
Phone Number:
(571)272-1367
Mailbox Number:

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Cntr

Case serial number:
10/533,476
Class / Subclass(es):

MAY 15 REC'D

Pat. & T.M. Office

Earliest Priority Filing Date:
10/31/02

Format preferred for results:
E-mail

Search Topic Information:

Please do a structure search for the structures found in claim 1 of 10/533,476 (especially the structures labeled (III) and (IV)). The claim is available in eDan.

Thanks

Special Instructions and Other Comments:



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov



Bib Data Sheet

CONFIRMATION NO. 4041

SERIAL NUMBER 10/533,476	FILING DATE 04/29/2005 RULE	CLASS 106	GROUP ART UNIT 1755	ATTORNEY DOCKET NO. 2002CH106
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APPLICANTS

Bruno Piastra, Huningue, FRANCE;

Hans Joachim Metz, Darmstadt, GERMANY;

** CONTINUING DATA *****
 This application is a 371 of PCT/IB03/04801 10/29/2003

** FOREIGN APPLICATIONS *****
 EUROPEAN PATENT OFFICE (EPO) 02405930.5 10/31/2002 NO

IF REQUIRED, FOREIGN FILING LICENSE GRANTED
 ** 03/02/2006

Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Examiner's Signature _____ Initials _____	STATE OR COUNTRY FRANCE	SHEETS DRAWING 0	TOTAL CLAIMS 13	INDEPENDENT CLAIMS 2
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ADDRESS
 25255
 CLARIANT CORPORATION
 INTELLECTUAL PROPERTY DEPARTMENT
 4000 MONROE ROAD
 CHARLOTTE , NC
 28205

TITLE
 Pigment formulations and processes for their preparation

FILING FEE	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees (Filing) <input type="checkbox"/> 1.17 Fees (Processing Ext. of time)
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FILE 'REGISTRY' ENTERED AT 12:20:24 ON 18 MAY 2006
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L1 FILE 'LREGISTRY' ENTERED AT 11:50:32 ON 18 MAY 2006
STR

L2 FILE 'REGISTRY' ENTERED AT 12:08:46 ON 18 MAY 2006
0 S L1
L3 SCR 1840 AND 1609
L4 0 S L1 AND L3

L5 FILE 'LREGISTRY' ENTERED AT 12:11:07 ON 18 MAY 2006
STR L1

L6 FILE 'REGISTRY' ENTERED AT 12:14:43 ON 18 MAY 2006
0 S L5 AND L3
L7 STR L5
L8 0 S L7 AND L3
L9 6 S L7 AND L3 FUL
SAV L9 GRE476/A

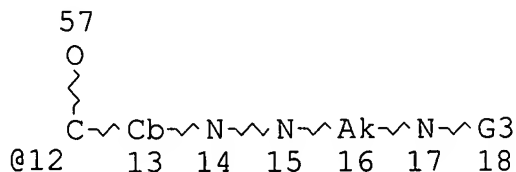
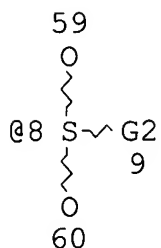
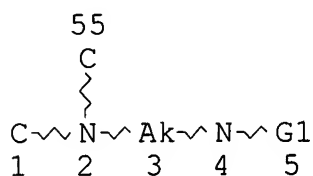
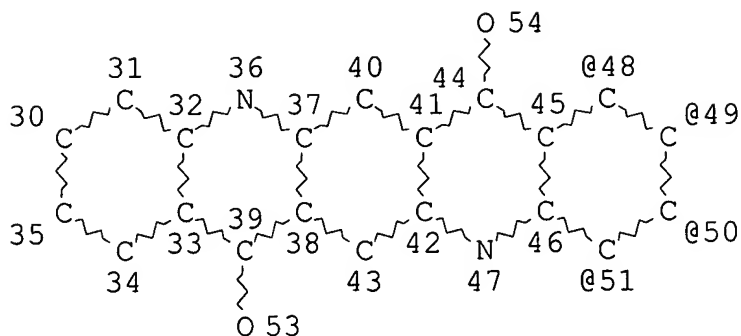
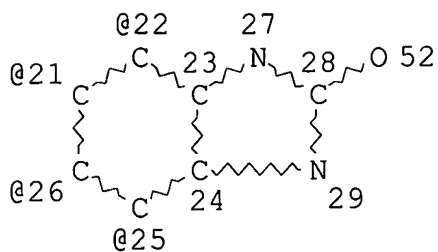
L10 FILE 'CAOLD' ENTERED AT 12:19:49 ON 18 MAY 2006
0 S L9

L11 FILE 'ZCAPLUS' ENTERED AT 12:19:56 ON 18 MAY 2006
5 S L9

FILE 'REGISTRY' ENTERED AT 12:20:24 ON 18 MAY 2006

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L3 SCR 1840 AND 1609
L7 STR



VAR G1=8/12

VAR G2=48/49/50/51

VAR G3=22/21/26/25

NODE ATTRIBUTES:

NSPEC IS RC AT 1

NSPEC IS RC AT 55

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 52

STEREO ATTRIBUTES: NONE

L9 6 SEA FILE=REGISTRY SSS FUL L7 AND L3

100.0% PROCESSED 93332 ITERATIONS

6 ANSWERS

SEARCH TIME: 00.00.02

=> file zcaplus

FILE 'ZCAPLUS' ENTERED AT 12:20:40 ON 18 MAY 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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=> d l11 1-5 ibib abs hitstr hitrn

L11 ANSWER 1 OF 5 ZCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:370696 ZCAPLUS
 DOCUMENT NUMBER: 140:376900
 TITLE: Pigment formulations and their production
 PATENT ASSIGNEE(S): Clariant International Ltd., Switz.
 SOURCE: Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1416018	A1	20040506	EP 2002-405930	20021031
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
WO 2004039895	A1	20040513	WO 2003-IB4801	20031029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003272027	A1	20040525	AU 2003-272027	20031029
EP 1558683	A1	20050803	EP 2003-753869	20031029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				

PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK
CN 1723249 A 20060118 CN 2003-80102344 200310
29
PRIORITY APPLN. INFO.: EP 2002-405930 A 200210
31
WO 2003-IB4801 W 200310
29

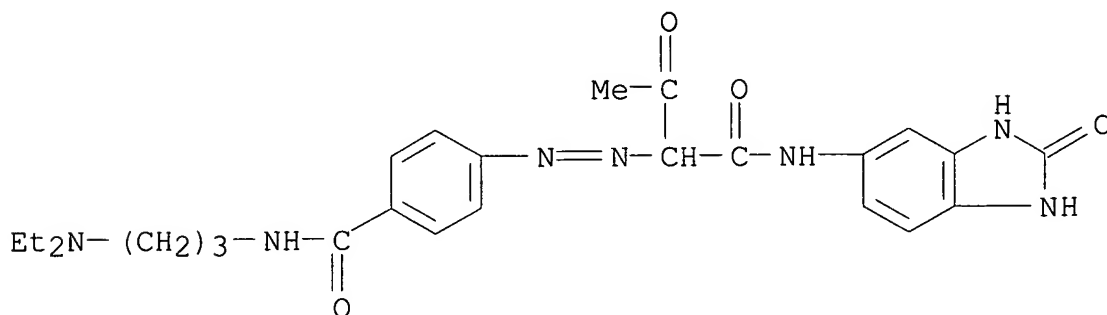
AB The invention relates to a pigment formulation which comprises at least one org. pigment selected from C.I. Pigment Red 279 or C.I. Pigment Orange 80 (both thiazine indigo pigments) and at least one pigment-dispersing agent. The invention further relates to a process for prepg. such a formulation as well as to a method of pigmenting high mol. wt. org. material of natural or synthetic origin with the formulation.

IT **164578-14-7 227098-09-1**

(dispersant; pigment compns. contg.)

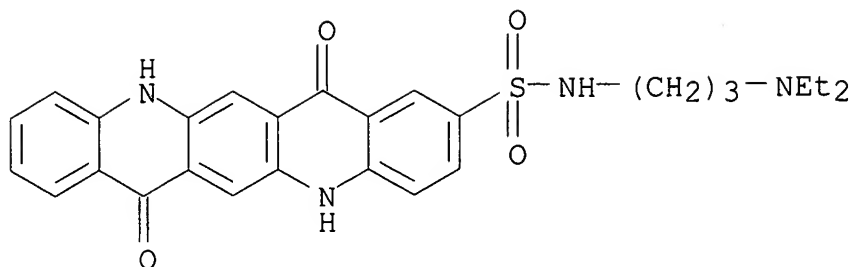
RN 164578-14-7 ZCAPLUS

CN Benzamide, N-[3-(diethylamino)propyl]-4-[[1-[(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)amino]carbonyl]-2-oxopropyl]azo]- (9CI) (CA INDEX NAME)



RN 227098-09-1 ZCAPLUS

CN Quino[2,3-b]acridine-2-sulfonamide, N-[3-(diethylamino)propyl]-5,7,12,14-tetrahydro-7,14-dioxo- (9CI) (CA INDEX NAME)



IT 164578-14-7 227098-09-1

(dispersant; pigment compns. contg.)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L11 ANSWER 2 OF 5 ZCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:612128 ZCAPLUS

DOCUMENT NUMBER: 133:209274

TITLE: Pigment dispersants and their use in color
photosensitive compositions with good storage
stability

INVENTOR(S): Takeda, Akihiko; Sugiyama, Takekatsu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000239554	A2	20000905	JP 1999-44813	19990223
PRIORITY APPLN. INFO.:			JP 1999-44813	19990223

OTHER SOURCE(S): MARPAT 133:209274

AB The dispersants are used in an org. solvent with pigments and contain AN:XY type compds. where A, XY are groups can form azo colorants provided that X is direct bond or 1,3-C6H4CONH, 1,4-C6H4CONH, 1,3-C6H4SO2NH, 1,4-C6H4SO2NH, and 1,4-C6H4O, Y is Ph groups bearing 1 or 2 CONHXNR2 groups (Z = lower alkylene group; NR2

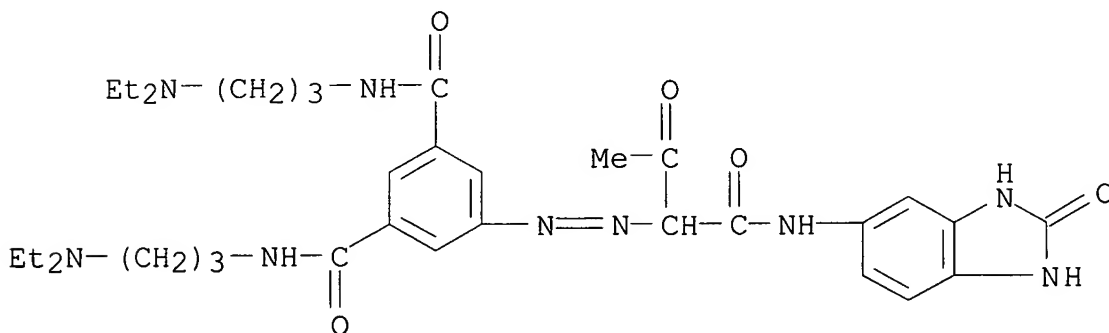
= lower alkylamino groups or N-contg. heterocyclic groups). The photosensitive compns. are useful as inks or photo-imaging materials, etc. Thus, heating di-Me 5-nitroisophthalate with N,N-diethyl-1,3-propanediamine at 80-100.degree., and mixing the resulting 5-nitroisophthalic acid bis(3-diethylaminopropylamide) with Et₃N, DMF and 4-nitrobenzoyl chloride gave 4-nitrobenzoyl-4-[3,5-bis(3-diethylaminopropylcarbamoyl)]phenylamide which was reduced, diazotized and coupled with 5-acetoacetylaminobenzimidazole to give a dispersant. Mixing C.I. Pigment Red 254 (pigment) 6.4 with the dispersant 0.6, a benzyl methacrylate-methacrylic acid copolymer soln. 15.8 and 1-methoxy-2-Pr acetate 57.2 g gave a pigment dispersion with viscosity 30 cP and color contrast 1350.

IT **290829-11-7P**

(dispersants; manuf. of pigment dispersants and use in color photosensitive compns. with good storage stability)

RN 290829-11-7 ZCAPLUS

CN 1,3-Benzenedicarboxamide, N,N'-bis[3-(diethylamino)propyl]-5-[[1-[[[(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)amino]carbonyl]-2-oxopropyl]azo]- (9CI) (CA INDEX NAME)



IT **290829-11-7P**

(dispersants; manuf. of pigment dispersants and use in color photosensitive compns. with good storage stability)

L11 ANSWER 3 OF 5 ZCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:401627 ZCAPLUS

DOCUMENT NUMBER: 131:46022

TITLE: Process for preparing organic pigment compositions useful for high-solids coatings
INVENTOR(S): Badejo, Ibraheem T.; Rice, Daphne J.; Greene, Michael J.

PATENT ASSIGNEE(S): Bayer Corp., USA

SOURCE: Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 924265	A2	19990623	EP 1998-123145	199812 04
EP 924265	A3	19991103		
EP 924265	B1	20030319		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 5972099	A	19991026	US 1997-991980	199712 17
CA 2255158	AA	19990617	CA 1998-2255158	199812 03
JP 11246786	A2	19990914	JP 1998-375493	199812 16
PRIORITY APPLN. INFO.:			US 1997-991980	A 199712 17

OTHER SOURCE(S): MARPAT 131:46022

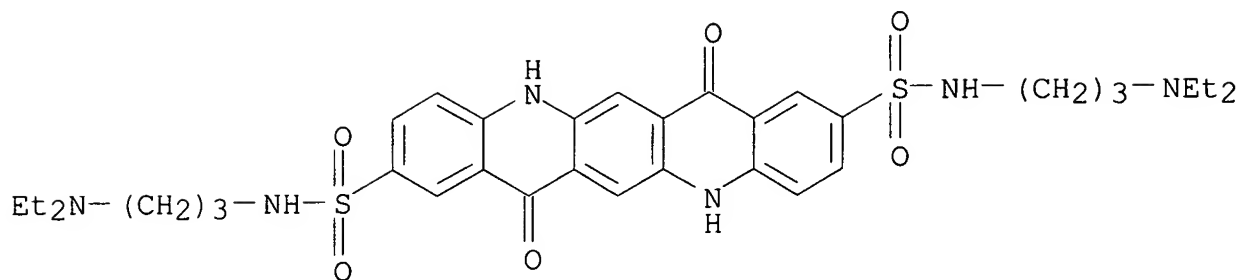
AB This invention relates to a process for prepg. pigment compns. by (a) treating an org. pigment with (1) a sterically hindered and/or bulky primary amine, and (2) a liq. in which the org. pigment is insol., and (b) blending the resultant surface-treated pigment compn. from step (a) with a pigment deriv. of formula (I) wherein Q represents an org. pigment moiety, X is O, S, NR1, -SO2-, -CO-, -Alk-, -Ar-, or combinations thereof, Y is -OR2, -NR3R4, or Het, Alk is C1-C5 alkylene, C2-C5 alkenylene, or C4-C5 alkadienylene, or substituted derivs. thereof, Ar is arylene, R1, R2, R3, and R4 are independently hydrogen, C1-C6 alkyl, C5-C7 cycloalkyl, C7-C16 aralkyl, or C6-C10 aryl, Het is a heterocycle, and n is 1 to 4.

IT **164578-11-4 227098-09-1**

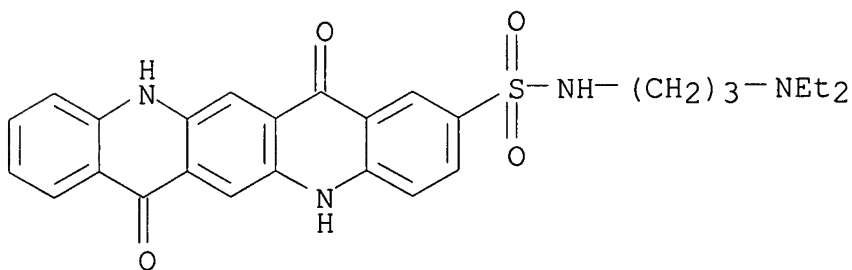
(process for prepg. org. pigment compns. with improved rheol. for high-solids coatings)

RN 164578-11-4 ZCAPLUS

CN Quino[2,3-b]acridine-2,9-disulfonamide, N,N'-bis[3-(diethylamino)propyl]-5,7,12,14-tetrahydro-7,14-dioxo- (9CI) (CA INDEX NAME)



RN 227098-09-1 ZCAPLUS

CN Quino[2,3-b]acridine-2-sulfonamide, N-[3-(diethylamino)propyl]-
5,7,12,14-tetrahydro-7,14-dioxo- (9CI) (CA INDEX NAME)

IT 164578-11-4 227098-09-1

(process for prepg. org. pigment compns. with improved rheol. for
high-solids coatings)

L11 ANSWER 4 OF 5 ZCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:53808 ZCAPLUS

DOCUMENT NUMBER: 126:105493

TITLE: Color filter pigments and coloring compositions
for color filters with excellent spectral
properties, transparency, and alkali resistanceINVENTOR(S): Ehashi, Shigeyuki; Mochizuki, Akimitsu; Sato,
Akio; Ooizumi, Tetsuro

PATENT ASSIGNEE(S): Toyo Ink Mfg Co, Japan; Toppan Printing Co Ltd

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

JP 08295810

A2

19961112

JP 1995-101851

199504

26

PRIORITY APPLN. INFO.:

JP 1995-101851

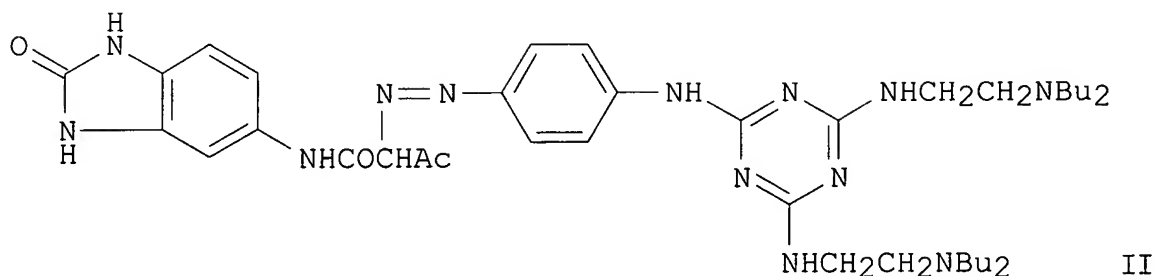
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OTHER SOURCE(S):

MARPAT 126:105493

GI



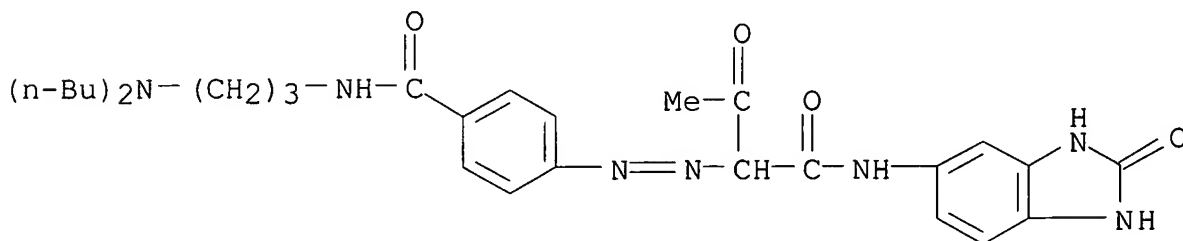
AB The title benzimidazolone pigments are formed by coupling of diazotized $\text{XYC}_6\text{H}_3\text{NH}_2$ ($\text{X}, \text{Y} = \text{H}, \text{NO}_2, \text{CONHR}_1, \text{CO}_2\text{R}_2, \text{CF}_3, \text{cyano}, \text{halogen}, \text{C1-6 alkyl}, \text{C1-18 alkoxy}; \text{R}_1 = \text{H}, \text{C1-18 alkyl}, \text{aryl}; \text{R}_2 = \text{H}, \text{C1-6 alkyl}$) and 5-acetoacetylaminobenzimidazolone (I). A coloring compn. for red filters comprised diazo coupling products of 2-methoxyaniline and 4-nitroaniline with I 4, C.I. Pigment Red 177 10, II 0.4, 50:30:20 Bu methacrylate-Bu acrylate-methacrylic acid copolymer 13, and Anon 60 parts.

IT **185319-87-3**

(color filter pigments and coloring compns. for color filters with excellent spectral properties, transparency, and alkali resistance)

RN 185319-87-3 ZCAPLUS

CN Benzamide, N-[3-(dibutylamino)propyl]-4-[[1-[(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)amino]carbonyl]-2-oxopropyl]azo]- (9CI) (CA INDEX NAME)



IT 185319-87-3

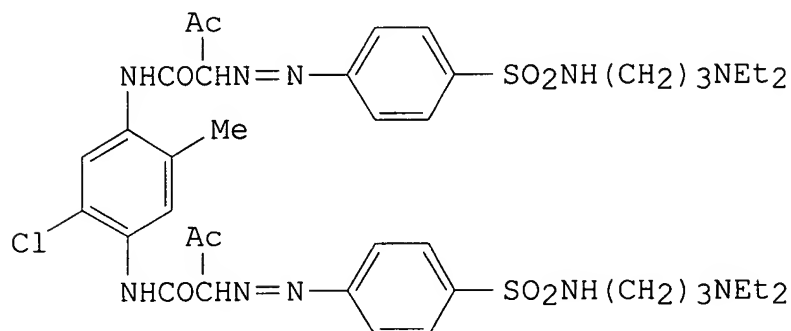
(color filter pigments and coloring compns. for color filters with excellent spectral properties, transparency, and alkali resistance)

L11 ANSWER 5 OF 5 ZCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1982:164258 ZCAPLUS
 DOCUMENT NUMBER: 96:164258
 TITLE: Pigment dispersions
 PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 56166266	A2	19811221	JP 1980-67860	198005 23
JP 01034269	B4	19890718	JP 1980-67860	A 198005 23

PRIORITY APPLN. INFO.:

GI



AB Pigments (100 parts) showing excellent agglomeration resistance in nonaq. vehicles contain 0.3-20 parts azo compds. $Q[Z(CH_2)_nNRR1]_m$ [Q = azo dye residue; Z = direct bond, O, NR2, S, CO, SO2, CR2R3,

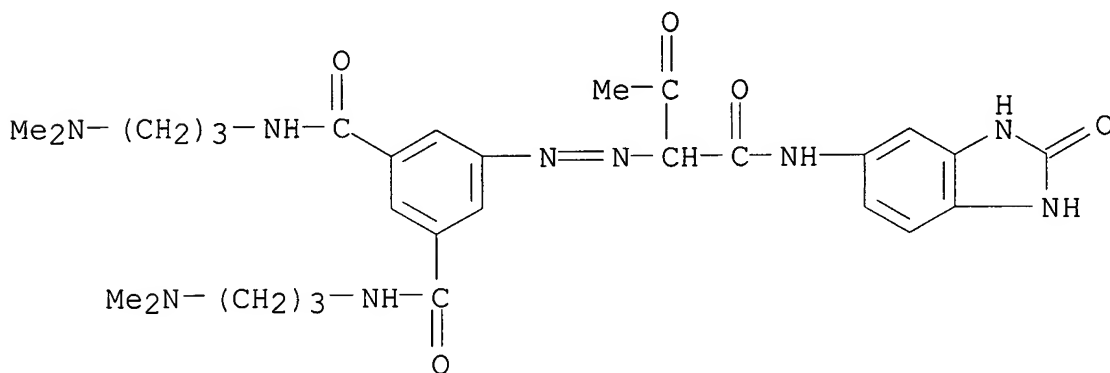
SO₂NR₂, CONR₂, C₁-20 alkylene or alkenylene not directly bonded to the (CH₂)_n, arylene; R, R₁ = H, C₁-20 alkyl, alkenyl, aryl, RR₁ = heterocyclic member; R₂, R₃ = H, C₁-20 alkyl, aryl; n, m = 1-4]. For example, a PVC [9002-86-2] gravure varnish contg. 10% C.I. Pigment Yellow 83 [5567-15-7] was milled and mixed with 10% (based on the Yellow 83) I [79118-84-6] to give an ink having viscosity 1920 and 650 cP at 6 and 60 rpm, resp., compared with 3530 and 610 cP, resp., for a control not contg. I.

IT **81526-81-0**

(pigment mixts. contg., agglomeration-resistant, for coatings and inks)

RN 81526-81-0 ZCAPLUS

CN 1,3-Benzenedicarboxamide, 5-[[1-[[[(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)amino]carbonyl]-2-oxopropyl]azo]-N,N'-bis[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)



IT **81526-81-0**

(pigment mixts. contg., agglomeration-resistant, for coatings and inks)